## CLAIMS

- [1] A coating composition characterized by comprising: a polyalkylsilazane compound; an acetoxysilane compound; and an organic solvent.
- [2] The coating composition according to claim 1, which further comprises a pore forming agent.
- [3] The coating composition according to claim 2, wherein said pore forming agent is a copolymer comprising a siloxy-containing polyethylene oxide compound or a siloxy-containing polyethylene oxide compound as monomer units.
- [4] The coating composition according to any one of claims 1 to 3, wherein said polyalkylsilazane compound comprises repeating units represented by general formula (1):

[Chemical formula 1]

$$\left[ \left( \stackrel{\stackrel{\scriptstyle R^2}{\stackrel{\scriptstyle N}{\stackrel{\scriptstyle N}{\stackrel{\scriptstyle 1}{\stackrel{\scriptstyle 1}{\stackrel\scriptstyle 1}{\stackrel\scriptstyle 1}{\stackrel\scriptstyle 1}{\stackrel\scriptstyle 1}{\stackrel\scriptstyle 1}{\stackrel\scriptstyle 1}}}}}}{\left( \stackrel{\stackrel{\scriptstyle 1}{\stackrel\scriptstyle 1}{\stackrel\scriptstyle 1}\stackrel{\stackrel{\scriptstyle 1}{\stackrel\scriptstyle 1}{\stackrel\scriptstyle 1}{\stackrel\scriptstyle 1}}}}{\left( \stackrel{\scriptstyle 1}{\stackrel\scriptstyle 1}\stackrel{\stackrel{\scriptstyle 1}{\stackrel\scriptstyle 1}{\stackrel\scriptstyle 1}{\stackrel\scriptstyle 1}{\stackrel\scriptstyle 1}}}\right)_{q}}}\right] (1)$$

wherein  $R^1$  represents a hydrogen atom or an alkyl group having 1 to 3 carbon atoms, provided that all of  $R^1$ s of the whole compound do not simultaneously represent hydrogen;

 $R^2$  to  $R^4$  each independently represent a hydrogen atom or an alkyl group having 1 to 3 carbon atoms, provided that all of  $R^2$  to  $R^4$  do not simultaneously represent hydrogen; and

p, q, and r each are 0 or 1 and  $0 \le p + q + r \le 3$ .

[5] A siliceous material characterized by being produced by coating a coating composition according to any one of claims 1 to 4 onto a substrate or by filling a coating composition according to any one of claims 1 to 4 into a frame or a groove, and firing the coating

composition.

- [6] A semiconductor device characterized by comprising a siliceous material according to claim 5 as an intermetal dielectric.
- [7] A process for producing a siliceous material, characterized by comprising heating a coating composition according to any one of claims 1 to 4 at a temperature of 350°C or below for 1 to 60 min.